## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claim 1 (original): A compound of the following formula (I), or a tautomer or pharmaceutically acceptable salt thereof:

$$R_4$$
 $R_5$ 
 $R_6$ 
 $R_1$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 

wherein R<sub>1</sub> is selected from -H, -C<sub>1-6</sub> alkyl, or -C<sub>1-6</sub> alkyl substituted with R<sub>7</sub>;

Z is selected from  $-C(O)OR_2$  or  $-C(O)CH_2C(O)X$ ;

## X is selected from:

(a) -a 5 or 6-membered aromatic or heteroaromatic ring, containing 0, 1, 2, 3 or 4 heteroatoms selected from oxygen, nitrogen and sulfur, unsubstituted or independently substituted on a nitrogen or carbon atom by at least one substituent selected from halogen,  $C_{1-6}$  alkyl, or phenyl, or

(b)  $-C(O)OR_2$ ;

 $R_2$  is selected from -H or - $C_{1-6}$  alkyl;

 $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are each independently selected from -H, -halogen, -C<sub>1-6</sub> alkyloxy-, -N(R<sub>8</sub>)(R<sub>9</sub>), -C(O)CH<sub>2</sub>C(O)X, -S(O)<sub>n</sub>-R<sub>10</sub> wherein n is independently selected from 0, 1 and 2,

heteroalkyl, cycloalkyl, substituted cycloalkyl, heterocycloalkyl, substituted heterocycloalkyl, aryl, substituted aryl, heteroaryl, or substituted heteroaryl;

R<sub>7</sub> independently selected from heteroalkyl, cycloalkyl, substituted cycloalkyl, heterocycloalkyl, substituted heterocycloalkyl, aryl, substituted aryl, heteroaryl, or substituted heteroaryl;

each R<sub>8</sub> and R<sub>9</sub> is independently selected from -H or -C<sub>1-2</sub> alkyl; and

each R<sub>10</sub> is independently selected from -C<sub>1-6</sub> alkyl, pyridyl, or phenyl, wherein the phenyl is unsubstituted or substituted on a carbon atom by least one substituent selected from halogen, -CH<sub>3</sub>, -OR<sub>2</sub>, or -NO<sub>2</sub>;

provided that if Z is -C(O)OR<sub>2</sub> then at least one of R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> or R<sub>6</sub> is -C(O)CH<sub>2</sub>C(O)X.

Claim 2 (original): The compound of claim 1, wherein Z is  $-C(O)CH_2C(O)X$  and  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are not  $-C(O)CH_2C(O)X$ .

Claim 3 (original): The compound of claim 2, wherein X is  $-C(O)OR_2$ .

Claim 4 (original): The compound of claim 3, wherein  $R_2$  is -H or ethyl;  $R_3$  and  $R_6$  are each -H;  $R_4$  and  $R_5$  are each independently -H or -halo; and  $R_1$  is 4-fluorophenylmethyl.

Claim 5 (original): The compound of claim 3, wherein  $R_2$  is -H or alkyl; and  $R_1$  is 4-fluorophenylmethyl.

Claim 6 (original): The compound of claim 1, wherein R<sub>7</sub> is independently selected from pyridyl, thienyl, naphthyl or phenyl, wherein the phenyl is unsubstituted or independently substituted on a carbon atom by at least one substituent selected from halogen, -CH<sub>3</sub>, -OR<sub>2</sub>, or -NO<sub>2</sub>.

Claim 7 (original): The compound of claim 1, wherein Z is  $-C(O)CH_2C(O)C(O)OR_2$  and  $R_1$  is  $-C_{1-6}$  alkyl, or  $-C_{1-6}$  alkyl substituted with  $R_7$ .

Claim 8 (original): The compound of claim 4, wherein R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> are each -H.

Claim 9 (original): The compound of claim 4, wherein  $R_2$  is -H and  $R_4$  and  $R_5$  are each -H or -Cl wherein at least one of  $R_4$  or  $R_5$  is -Cl.

Claim 10 (original): The compound of claim 7, wherein  $R_1$  is a halogen-substituted arylalkyl.

Claim 11 (original): The compound of claim 1, wherein Z is -C(O)OR<sub>2</sub> and at least one of R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> or R<sub>6</sub> is -C(O)CH<sub>2</sub>C(O)X.

Claim 12 (original): The compound of claim 11, wherein R<sub>4</sub> is -C(O)CH<sub>2</sub>C(O)X.

Claim 13 (original): The compound of claim 12, wherein  $R_1$  is a halogen-substituted arylalkyl.

Claim 14 (original): The compound of claim 13, wherein  $R_4$  is  $-C(O)CH_2C(O)C(O)OR_2$ ,  $R_2$  is -H or ethyl, and  $R_1$  is 4-fluorophenylmethyl.

Claim 15 (original): The compound of claim 1, wherein at least one of R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> is a 5 or 6-membered heteroalicyclic ring containing 1 or 2 nitrogen heteroatoms.

Claim 16 (original): A pharmaceutical composition comprising the formula (I) compound of claim 1, and a pharmaceutically acceptable carrier.

Claim 17 (original): A pharmaceutical composition comprising the formula (I) compound of claim 4, and a pharmaceutically acceptable carrier.

Claim 18 (original): A pharmaceutical composition comprising the formula (I) compound of claim 11, and a pharmaceutically acceptable carrier.

Claim 19 (original): A method of treating or preventing AIDS or HIV infection in a subject, the method comprising administering to the subject a therapeutically effective amount of at least one formula (I) compound of claim 1.

Claim 20 (original): The method of claim 19, comprising treating HIV infection in a subject.

Claim 21 (original): The method of claim 19, wherein the method of treatment helps to prevent or delay the onset of infection by HIV.

Claim 22 (original): The method of claim 19, comprising orally administering the formula (I) compound.

Claim 23 (original): The method of claim 19, comprising parenterally, sublingually, intranasally, intrathecally, topically, opthalmically or rectally administering the formula (I) compound.

Claim 24 (original): The method of claim 19, wherein the formula (I) compound comprises a compound wherein Z is  $-C(O)CH_2C(O)X$  and  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are not  $-C(O)CH_2C(O)X$ .

Claim 25 (original): The method of claim 24, wherein the formula (I) compound comprises a compound wherein X is -C(O)OR<sub>2</sub>.

Claim 26 (original): The method of claim 25, wherein the formula (I) compound comprises a compound wherein  $R_2$  is -H or ethyl;  $R_3$  and  $R_6$  are each -H;  $R_4$  and  $R_5$  are each independently -H or -halo; and  $R_1$  is 4-fluorophenylmethyl.

Claim 27 (original): The method of claim 19 wherein the formula (I) compound comprises a compound wherein Z is  $-C(O)OR_2$  and at least one of  $R_3$ ,  $R_4$ ,  $R_5$  or  $R_6$  is  $-C(O)CH_2C(O)X$ .

Claim 28 (original): The method of claim 27 wherein the formula (I) compound comprises a compound wherein  $R_4$  is  $-C(O)CH_2C(O)C(O)OR_2$ ,  $R_2$  is -H or ethyl, and  $R_1$  is 4-fluorophenylmethyl.

Claim 29 (original): The method of claim 26, comprising treating HIV infection in a subject.

Claim 30 (original): The method of claim 28, comprising treating HIV infection in a subject.

Claim 31 (original): A method of inhibiting a retroviral integrase, the method comprising exposing the HIV integrase to an integrase inhibiting amount of at least one formula (I) compound of claim 1.

Claim 32 (original): The method of claim 31, wherein the formula (I) compound comprises a compound wherein Z is  $-C(O)CH_2C(O)X$  and  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are not  $-C(O)CH_2C(O)X$ .

Claim 33 (original): The method of claim 32, wherein the formula (I) compound comprises a compound wherein X is  $-C(O)OR_2$ .

Claim 33 (original): The method of claim 33, wherein the formula (I) compound comprises a compound wherein  $R_2$  is -H or ethyl;  $R_3$  and  $R_6$  are each -H;  $R_4$  and  $R_5$  are independently -H or -halo; and  $R_1$  is 4-fluorophenylmethyl.

Claim 35 (original): The method of claim 31 wherein the formula (I) compound comprises a compound wherein Z is  $-C(O)OR_2$  and at least one of  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  is  $-C(O)CH_2C(O)X$ .

Claim 36 (original): The method of claim 35 wherein the formula (I) compound comprises a compound wherein  $R_4$  is  $-C(O)CH_2C(O)C(O)OR_2$ ,  $R_2$  is -H or ethyl, and  $R_1$  is 4-fluorophenylmethyl.

Claim 37 (original): The method of claim 31, comprising inhibiting a HIV integrase.

Claim 38 (currently amended): The method of claim 31, comprising inhibiting strand transfer catalyzed by HV HIV integrase.

Claim 39 (original): The method of claim 31, comprising inhibiting incorporation of a donor strand DNA into a receiving strand DNA.

Claim 40 (original): A method of screening for an anti-HIV integrase drug, comprising: providing an assay of HIV integrase inhibition; and

using the assay to screen for drugs comprising analogs or derivatives of any of the compounds of claim 1.

Claim 41 (original): A method of treating or preventing AIDS or HIV infection in a subject, the method comprising administering to the subject a therapeutically effective amount of a pharmaceutical composition of claim 16.

Claim 42 (original): A method of treating or preventing AIDS or HIV infection in a subject, the method comprising administering to the subject a therapeutically effective amount of a pharmaceutical composition of claim 17.

**PATENT** 

Claim 43 (original): A method of treating or preventing AIDS or HIV infection in a subject, the method comprising administering to the subject a therapeutically effective amount of a pharmaceutical composition of claim 18.